The News-Herald.

HILLSBORO, OHIO.

THURSDAY, NOVEMBER 3, 1887.

A SAMPLE SPEECH.

The Political Candidate Gets in His Work on the Farmers.

The farmers gathered together at the various county fairs this year had on exhibition, in addition to the usual assortment of horse-trots, prize babies, three-card monte men and other agricultural products of this great star-spangled nation, the political candidate and his remarks.

A condensed report of the average speech of the last-named exhibit is appended.

Gentlemen, agriculturists and brothers: I am proud to speak to you to-day, proud to have the opportunity of addressing the men who feed us all—the farmers; proud to have the ears of the horny-handed sons of toil.

I love to meet you in your own open-faced country, where the tall potato vine raises its silken crowned tassel, and where the cucumber tree drops its pungent pickle upon the mellow ground.

When in the city, cooped up in walls of bricks and mortar, my thoughts oft wander to the meadows and woodlands, where the deep red blossoms of the succulent buckwheat are announcing a prospective yield of ten tons of cakes to the acre, and the butternut tree is yielding its stores of thick cream.

Gentlemen, I say that when I think of the strawberry bush putting forth its tender leaves and vying with the clover tree in its efforts to beautify the landscape, I want to leave the moil and toil and carking care of city life behind me, hie to the green fields and pleasant woods, and in indolent ease lie on a spring bed of maple sugar and gaze through the overarching branches of the lettuce tree to the blue vault above.

The charms of country life ever had for me an irresistible fascination. Born over yonder in East Sandy township, for several long, happy years it was my lot to prune the tomatoes, graft the radishes, rake the cabbages, mow the celery, shake up the asparagus beds, and do such similar chores as a boy of my size could.

In addition to these duties I have often ridden the geese to water, milked the sorrel steer and gathered the teeming fruits of the turnip tree. It was there I learned the proper time to shear the geese was when the moon was full, and that the burrs in a chestnut horse's tail could only be successfully eradicated when the moon was new.

There, too, I learned that the subsoil plow should only be used in harrowing white clover, and that young bulls should never be harnessed to the flail until they have been broken to the threshing machines.

Often have I sat on the cow-catcher of the reaper and assisted in harvesting the bounteous crop of corn. Many are the evenings I have passed full merrily in pleasant company, when all the boys and girls of the neighborhood would meet and hold a grand potato shucking or corn-winnowing, when apples and innocuous hard cider formed the exhilarating beverage.

I will say no more. I have told you enough, gentlemen, to convince you that your aspirations are my aspirations, your hopes my hopes, and that your education has been my education, and that if I am elected by your valuable suffrages to the office for which my friends have insisted I shall run, I shall ever remember that if the farmer's interests are paramount in this country they are undoubtedly the most important. WM. H. SIVITER.

POPULAR SCIENCE.

Points of Interest Engaging the Attention of Savants.

The bacteria of water and ice have been found in hail by Professor L. Maggi, an Italian physiologist. Such organisms are well-nigh universal.

The transparency of molten iron, noticed during a casting of several tons, has been recorded by Mr. W. Ramsay. It has a yellow tinge.

The River Turia, at a point thirty-five miles away, is to be utilized for running the factories of Valencia, Spain. The 3,000-horse power available will be transmitted by electricity.

The idea of putting monkeys to work seems to have been accomplished in Brazil, where, according to a report from Rio Janeiro, twenty of these animals have been successfully trained to cut hemp on a large hemp farm.

A petroleum exhibition is soon to be held in St. Petersburg, in connection with which the Russian minister of war offers a prize of 500 roubles for a compact and practical battery for electric lighting with incandescent lamps.

Professor Lodge's discovery of the remarkable effect of static electricity in freeing the air from dust and vapor has been utilized by Mr. J. G. Lorrain in the construction of an apparatus for dissipating the smoke produced by the discharge of cannon.

Disasters to eyesight are evidently more common than is generally supposed, judging from the statement that more than 2,000,000 glass eyes are made annually in Germany and Switzerland. An artificial eye seldom lasts more than five years, the secretion of the glands turning it cloudy.

Dr. Murray, of the Royal Society of Edinburgh, estimates the mean height of the land of the globe to be between 1,900 and 2,100 feet, the latter limit being probably the more nearly correct. Humboldt's estimate of the mean height of the continents was 1,000 feet.

An effective method of petrifying animal bodies was claimed by Dr. G. B. Massedaglia, a distinguished Padua chemist, who died more than forty years ago. The secret of the process was left for his legitimate heirs, who have only very recently been found. The discovery so long locked up is now eagerly sought, and large sums have been offered for it—thus far unsuccessfully.

The plan of utilizing coke dust by making it into briquettes has been successfully adopted by a gas company at Lyons, France. This is accomplished by mixing each ton of fine coke with about two hundred pounds of coal-tar pitch and then passing it through a compressing machine. The total cost is $4 a ton, and the product readily sells for $5 50 and $6 a ton. The expense for this plant, with a capacity of sixty-five tons daily, was only $5,000.

Professor C. W. Vogel communicated to the members of the Berlin Physical Society, at one of their recent meetings, a very ingenious discovery, by which it is now possible to obtain instantaneous photographs, not only at night but also in the darkest places. Messrs. Goedicke and Miethe have prepared a mixture of pulverised magnesium, chlorate of potash, and sulphide of antimony, which, when ignited, produces an explosive, lightning-like illumination of such intensity that by means of it an instantaneous photograph can be taken. The speaker gave a demonstration of the discovery by taking photographs of several persons present. He used the artificial light, of which each flash lasted one-fortieth of a second, and in a few minutes produced a picture during the meeting. The powders, as prepared by the discoverers, cost only a few pfennigs each, and will hence rapidly come into general use.

Burning Garbage.

How to dispose of the garbage is one of the questions that is troubling large cities. In Montreal the system of burning has been adopted, and the Philadelphia board of health has sought information concerning the success of the device. From the reply received it appears that a crematory can be built at a cost of $4,000 for each furnace, exclusive of the cost of the shed covering. It can be managed by four men. [illegible]

STORMS.

KNOWLEDGE OF WEATHER IN THE PAST AND PRESENT.

What Benjamin Franklin Discovered Years Ago Concerning the Course of the Wind—What is Known To-day—Scientific Investigations and What They Have Shown.

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HEN Benjamin Franklin discovered the solitary fact that storms move in a northeastward direction, the knowledge of weather compared with our modern weather science about as Webster's blue spelling book, containing the picture of the boy in the apple tree, compares with modern illustrated press-work. Science is no longer an abstruse matter for scholarly minds in which the masses have no special interest. It has become utilitarian, and is being more and more popularized. To the progress made in the youngest of sciences—meteorology—and that mainly through the work of the United States weather service, we owe much. The system of meteorology that has been developed and is receiving popular appreciation is moreover gradually sweeping away the preposterous claims of weather prophetic power, the recognition of which has not been complimentary to the general intelligence of the age.

As every one knows, the conditions of the weather most important to human interests are temperature, wind and rain. These conditions are associated with the heated and therefore light and expanding stratum, underlying a mass of cold and therefore dense and heavy atmosphere, seeks to rise. Finding in some favorable locality an escape through the overlying obstruction, an upward stream or current sets in, and to this point the adjacent surface air flows and ascends in the upward current. When the uprush is fairly under way the air flowing in from all sides quickly gains velocity and a whirling motion is established. You may illustrate this by filling a basin, having a hole in the centre of the bottom, with water. Open the hole and give the water an initial agitation, and you will find it moving around the sides of the basin while it is passing out of the hole in the bottom. The whirl increases in dimensions until there is a great revolving movement of atmosphere. A storm then is an immense area of circling winds, from which it gets the appropriate name "cyclone." It is a general inward atmospheric movement toward and around a central area.

Storms are fed and maintained by ascending currents of warm, moist air on their eastern and descending currents of cold, drying air, to take the place of the former, on their western side. The lighter air and rainfall in front of a storm induce the storm to move in that direction. This, together with the pushing force of the increasing pressure applied by the heavier descending currents of air in rear of the storm, determines the direction of the storm's movement. Temperature and moisture increase at places toward and over which the front part of the storm is moving, and decrease at places over which the front part of the storm has passed. With rising temperature and increasing moisture in front of the storm, pressure decreases and the barometer falls; while with falling temperature and drying air in rear of the storm pressure increases and the barometer rises. Moist regions attract a storm.

Regions where high pressure and a dry, hazy, smoky atmosphere prevail counteract the tendency to storm formation and rain, and repel, deflect, or at least retard the approaching storm. The circling winds carry the warm, vapor-laden southerly air around the front and across the northern end of the major axis of a storm, and bring the cold, drying, northerly air around the rear and across the southern end of this axis. This explains why it happens that the warmest weather of the month may occur in one part of the country simultaneously with the coldest weather of the month in another part. The warm, light, moist, southerly current in front of

passage of storms, and as they are bound up with the varying weight of the atmosphere, the barometer, which indicates the weight or pressure of the air, furnishes the key to the weather changes.

Weather maps representing a considerable part of the earth's surface, as the United States and the adjacent portions of the British possessions, show two distinct systems of atmospheric pressure, the forms and positions of which change from day to day. The data necessary for the construction of the weather map being properly placed upon a map of the country, concentric lines connecting places where the barometers read alike can be traced inclosing these systems. In one the lines will be found to inclose pressures successively less until in about the centre of the system the least pressure is located. In the other the lines will inclose pressures successively greater until in about the centre of the system the greatest pressure is located. The former system is known as an "area of low barometer" or cyclone, and the latter as an "area of high barometer" or anti-cyclone. Well-defined areas of low barometer are the distinguishing characteristics of the great storms, the hurricanes and typhoons of tropical regions and the ordinary storms of the middle latitudes. They are all comprehended under the general name cyclone.

It is upon this wonderful atmosphere of ours that we depend for the temperature and the elements that make life possible. The heat of the sun is the chief factor in the development and preservation of life, as it is also, by reason of its agency in upsetting the equilibrium of the atmosphere, the power of destruction and desolation. To meet the requirements of life it is essential that the surface of the earth and the lower strata of the atmosphere receive and retain the greatest amount of heat. This need is provided for in the case with which the sun's heat passes through the atmosphere, concentrating on the earth's surface and in the lower air strata, and the difficulty with which it is radiated back by the earth. In this respect the atmosphere serves the same purpose as glass, and the gardener gives us a practical illustration when he covers his plants with glass, which freely permits the passage of the sun's heat and prevents

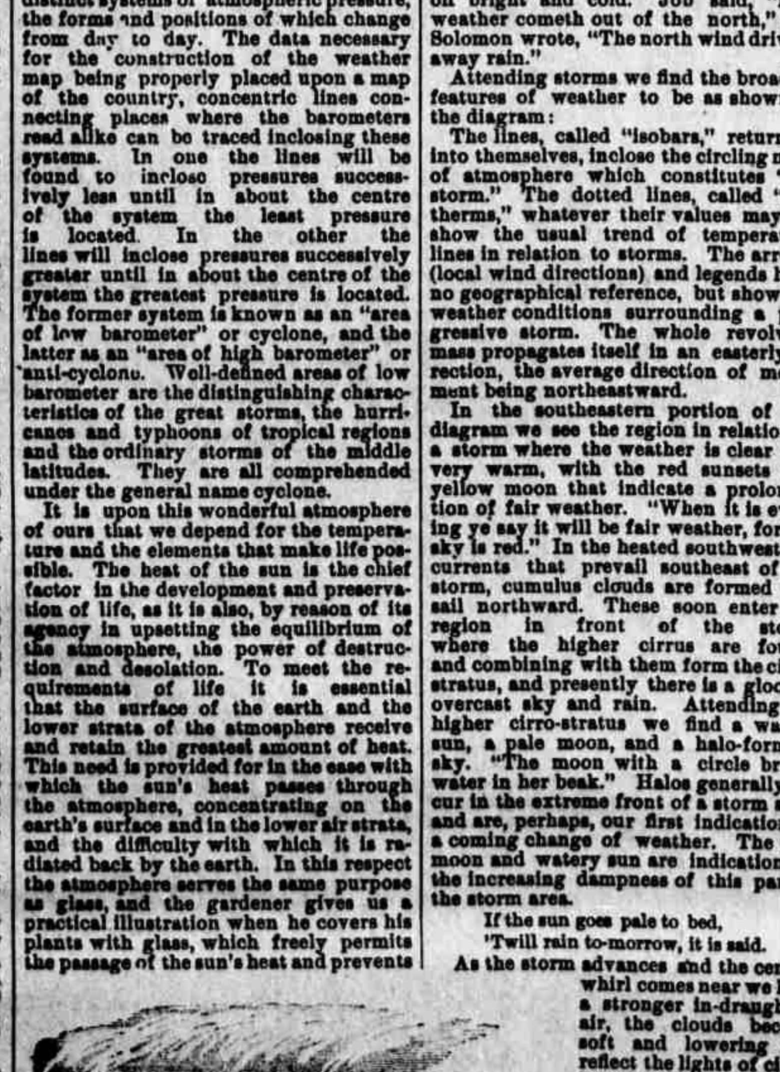
a storm gradually rises into the colder strata of the atmosphere and condenses its vapor of water into clouds and rain, which conditions are carried into the upper rear portion of the storm, where, under a falling temperature, the rain turns to snow, and, under the influence of evaporating northerly winds and rising barometer, the sky presently clears off bright and cold. Job said, "Fair weather cometh out of the north," and Solomon wrote, "The north wind driveth away rain."

Attending storms we find the broadest features of weather to be as shown in the diagram:

The lines, called "isobars," returning into themselves, inclose the circling mass of atmosphere which constitutes "the storm." The dotted lines, called "isotherms," whatever their values may be, show the usual trend of temperature lines in relation to storms. The arrows (local wind directions) and legends have no geographical reference, but show the weather conditions surrounding a progressive storm. The whole revolving mass propagates itself in an easterly direction, the average direction of movement being northeastward.

In the southeastern portion of the diagram we see the region in relation to a storm where the weather is clear and very warm, with the red sunsets and yellow moon that indicate a prolongation of fair weather. "When it is evening ye say it will be fair weather, for the sky is red." In the heated southwesterly currents that prevail southeast of the storm, cumulus clouds are formed and sail northward. These soon enter the region in front of the storm, where the higher cirrus are found, and combining with them form the cirro-stratus, and presently there is a gloomy, overcast sky and rain. Attending the higher cirro-stratus we find a watery sun, a pale moon, and a halo-forming sky. "The moon with a circle brings water in her beak." Halos generally occur in the extreme front of a storm area, and are, perhaps, our first indication of a coming change of weather. The pale moon and watery sun are indications of the increasing dampness of this part of the storm area.

> If the sun goes pale to bed,
> 'Twill rain to-morrow, it is said.



As the storm advances and the central whirl comes near we have a stronger in-draught of air, the clouds become soft and lowering and reflect the lights of cities. Presently the air becomes muggy and gloomy, and our decayed teeth, old wounds, corns, neuralgia or rheumatic pains forewarn us of the approaching storm. Odors become more frequent, sounds are heard and objects seen at greater distance

its radiation from the earth, thus, by storing heat, stimulating plant life and growth.

It is this concentration of the heat of the sun upon a portion of the earth's surface [illegible]

and animals become restless. The foreshadowed rain at last falls and the line of lowest pressure passes over us. Now, the wind shifts to [illegible]

moon, if there be any at night, and bright sunshine during the day.

Our relative position toward a storm and the weather we are likely to experience in connection with it may be readily seen on the diagram. If the storm passes by well north of us we have the warm southerly winds, the northward-sailing cumulus clouds, the fair weather with its yellow moon and red sunsets, followed, as the storm passes our meridian, by cooler westerly winds and a continuation of fair weather. We escape the winter side of the storm. If it comes up from the southwest and moves about as represented on the diagram we will experience the weather conditions of both its front and rear portions. If it comes up from the southeast and moves along the Atlantic coast we will have only its winter side. If we have a southeasterly wind and the usual premonitions of an approaching storm we may know by watching the wind whether the centre of that storm is coming directly toward us or whether it will pass by north or south of our locality. Should the wind continue from the southeast the storm will pass over us. Should the wind change to northeast and north, the storm center is passing by south of us and we will suffer raw, disagreeable weather with rain or snow and some days of low temperature. But should the wind change to the south and west, the storm is moving by north of us and we will feel only the southern edge of it. A study of the diagram with reference to any particular

section or locality will make this very clear.

Storm tracks across this continent lie along higher or lower parallels according to the season of the year. In winter and early spring storm centres move along lower latitudes, the lower the colder our winter, because the cold northerly air in rear of storms preponderates. In summer and autumn they generally keep well in the north, and the further north the warmer our summer and longer our autumn, because the warm southerly air preponderates. We see on the diagram that the surface air within influential distance of a circling storm is drawn toward and around the centre of the storm. It is a mistaken popular notion that a storm comes from the east because the wind blows from that quarter. Easterly winds generally indicate the approach of a storm from some westerly point.

In the southeastern quadrant of a cyclone, or storm, generally occurs the collision of fierce currents resulting in the tornado. S. S. BASSLER.

GOSSIP AND SLANDER.

The Wide Difference Which May Exist Between the Two.

There is a wide distinction between gossip and slander. Gossip may be true or false; slander implies a lie. Gossip may be good-natured, or ill-natured; slander is born of malice. Gossip may be edifying, or disgusting; slander degrades alike him who talks and him who listens. Gossip may sometimes lead to practical results and be pregnant with valuable suggestions; slander never helps any cause but that of the Evil One.

Gossip may be defined as talk about the little affairs of other people. These are, strictly speaking, none of your business; but there is this to be said—other people are certain to occupy themselves with your little affairs. Indeed, the social nature of humanity seems to involve an interest in what concerns our fellows, independent of its relation to ourselves. And there is another cause for the universal propensity to gossip. It has been said that no man is hero to his valet. It may also be observed that, without an enormous capacity for self-delusion, men cannot be admirable in their own eyes. There are thousands of petty weaknesses, secret foibles, resisted yet serious temptations and unspeakable thoughts for which we all have to reckon with our consciences. It is a satisfaction to find that we are not alone in these experiences—that what some lucky chance, it may be, has alone saved us from, Jones has actually committed; that puerilities we are sneakingly aware of in our own hearts and minds have been openly manifested by Smith. This brings in personal vanity to be gratified by piquant disclosures of a friend's peccadilloes, and imparts to gossip, perhaps, its main attractiveness. But gossip, nevertheless, deals with lighter matters than slander, and may be of good things as well as naughty.

One of the greatest errors fostered by a literature too exclusively masculine is that gossip is the peculiar province and delight of womankind. It requires a great deal of effrontery for an observant man to maintain this position. The male sex, he cannot but perceive, spends hours of the so-called business part of the day in the idlest of gossip. But the dear credulous creatures at home, who receive as gospel everything their "protectors" tell them, and a great deal more that is told them by others, have, of course, no idea how much "business" consists in slipping from one store to another and chatting on the news of the day, in lounging around street-corners, or in clubs and restaurants, and discussing the private concerns of men—in short, in gadding and gossiping. What a comfort it is that they believe so in their lords and masters, and are so healthfully conscious of their own inferiority!

A Story Teller.

Mr. Lawrence Jerome stands alone in New York as a story-teller and wit. He can literally tell funny stories by the hour and the peculiarity of his case is that it does not matter in the least what company he is in, he is equally happy. He has been known to amuse a party of ladies, a crowd of workmen, and a club of practiced wits all in one day. As for children, they think no one understands how to please them so well as he. He told a story at the Chamberlain dinner the other night of a dude running for Congress in a down-town district and saying to a lot of 'longshoremen that he had never been in that locality before. This incensed them to a strange degree. "Low cality? Low cality, is it?" said one of the angry men. "Fwat d'ye mane by insulting dacent people that way? If this is a low cality, I'd like to know where you'll find a high cality."—Exchange.

Changing the Order.

Agitation for a revolution in the manner of addressing mail matter is going on in Chicago. The new plan provides for the reverse of the present order of addressing—instead of the person's name coming first that of the country, followed by the State, then city and street, and last the person's name. The Chicago Tribune has interviewed many postoffice officials on the scheme, and while several approve of it [illegible]—Exchange.

HOWARD'S LETTER.

THE SHOP-GIRL PROBLEM MYSTIFYING ALL SORTS OF PEOPLE.

Generally the Brightest and Best-dressed Women of New York—Their Wages and How They Are Spent—Thoughtlessness and Selfishness on the Part of Employers.

The shop-girl problem mystifies all men and many women.

New York shop-girls are divided into many grades, but they are of a common species.

Now and then some absurdly sensitive member of the guild designates herself as a "saleslady," without pausing to think how absurd it would be to speak of her fellow-clerk as a salesgentleman, and there is a tradition that in a popular bazar on Fourteenth street the woman in charge is recognized as the "forelady," while her masculine companion, who does similar service to the firm in superintending men and boys, has to be content with the appellation of foreman, well knowing that if he were to call himself foregentleman he would be regarded as a dude and treated as a fraud. However stupid and careless individuals among this class of useful members of trade society may be, as a general thing the shop-girls of New York are bright, quick-witted, attentive and exceptionally well dressed.

Dressed?

Ah, that's the interesting question.

The weekly pay of these girls runs from $3 to $7. Now and then we hear of a phenomenon who receives $10, but the vast majority get $3, and quite a number get $5. For the sake of sensible argument let us strike an average, and say that the wages of a shop-girl in New York city are $4 a week, year in and year out.

What does she do with it?

Well, in the first place, she has to have a place in which to live and a table with which to support her life. She must have underclothes and neat, if not gaudy, dresses, and suitable apparel for the street when going to and from her employment. In the first place, it is no easy thing to obtain a situation as shop-girl. People unfamiliar with that sort of thing would be surprised at the amount of red tape and influence—literal influence—necessary to procure the humblest position for bright and capable and willing girls. Of their work it is unnecessary to speak. In some stores they are driven to the verge of desperation. The superciliousness, thoughtlessness and selfishness of shoppers have often been commented upon, as have the cares and troubles and physical discomforts of the girls who wait upon them; but, after all, the thing that most worries the women making purchases is how the little party on the other side of the counter manages, on her $4 a week, to pay her board and to dress as neatly and look as charming as she does; while the greatest trouble the aforesaid party on the other side of the counter has is to know how to make both ends meet.

To what does this question tend?

That there are instances where the clue followed would lead to disrepute is an unquestioned fact, but to stigmatize the great body of active strivers in that field of operation as immoral would be not only unmanly but absolutely absurd. The girls live somewhere. They manage to pay their board and their occasional doctor. So far as can be judged by careful scrutiny of their apparel from the waist up—the remainder being hidden by the counter—their costumes, though not as expensive, are quite as becoming and pretty as those worn by the customers who tax their time and patience. No matter how pallid and weary and fagged and discontented the average shop-girl appears while at her work, it is well known, by the thousands who tread our busy streets at nightfall, that the merriest groups they encounter are laughing, rollicking, bright-eyed shop-girls on their way home to supper. It is an ascertainable fact that these girls are familiar with the great successes in the theatre. Many of them are everlastingly chewing something. Bright ribbons decorate their necks and pretentious rings call attention to knuckles on their hands. They are rarely seen without earrings of some kind, and pretty if not costly jewelry adorns their person.

It is said that very many of these girls live at home, where their parents provide all that is needed in the way of shelter and food, letting the girls have the money that is paid them for their own dress and pleasure. That being the case, one can readily understand how a careful, intelligent girl can make herself look neat and trim and tidy on $4 a week; but a majority do not live at home. They live in boarding-houses, paying from $2 to $3 in the very cheapest and humblest place, while a low estimate would allow them $3 50 each per week for board alone. It must be remembered that $4 are taken as the average, and that thousands get but $3 at the utmost. There may be stores and shops where the girls are slatternly, and untidy in appearance, offensive in manner, rude and boisterous in behavior; but if so—and there is no proof that there are any such—they are phenomenal exceptions; for, while many ladies complain of indifference and suggested incivility, complaint of absolute rudeness or boisterousness or discourtesy is a thing almost unheard of. It has been suggested that comely girls are very apt to make friends with customers, who, in their turn, for courtesies and favors shown behind the counters, make occasional presents of money or desired articles, some even going so far as to extend social civilities, and in some cases more marked attention. That such is the case now and then, that young men of susceptible tendencies are attracted by pretty faces wherever seen, and are ready to act as escort, and perhaps as patron on occasions, there can be no doubt, but that this is the rule it would be folly and contrary to fact to assert.

The girls live, they look well, they average $4 a week.

Now, how do they do it?

In response to a question, a prominent employer said: "We have to be very [illegible] and remaining until a specified time, with a distinct understanding that if trade is brisk, particularly during holiday times, they must remain—no matter how late the hour."

"Do you allow them anything extra?"

"Oh, no. We keep and pay them during the dull seasons of the year, when there is very little to do; why shouldn't they reciprocate and help us when there is considerable to do?"

"Do you allow them anything for supper at such times?"

"Certainly not."

"But they lose their own at home."

"Oh, well, what is the use of going into that? If she doesn't like her place all she has to do is to step down and out. We have scores of applications every week."

"In case of illness what is your rule?"

"Well, the strict rule by which we are governed is no work, no pay. There is a difference. Some girls are hired by the year, some by the month, but a majority by the week. If one of the first-named should be ill for a few days there would be no deduction made; if she were to remain away more than a week, however, unless she were a very valuable woman, she would receive half pay only."

"For how long?"

"Oh, that depends entirely upon the individual. The rule would be for a month at furthest, but the others would have to be without their pay while absent. You see it would be a very easy matter to fill the places with girls, and we are put to serious inconvenience when they stay away, which is quite sufficient set-off for their loss of pay. In the case of a good, bright, smart girl we would keep the place open for her; but, as a general thing, if a girl is away two or three days we take it for granted that she has either found another place, or, without entering into it, we don't keep the place for her."

"Are they satisfied, do you think, with the money that you pay?"

"I dare say they would like more, but in our business, as in every other well-regulated occupation, compensation is regulated by the law of supply and demand. You see there is really very little responsibility upon these girls. They have nothing to think of. A customer asks and they answer a question. She wants to see this, that or the other. They show it. The price is plainly marked, and all the girl has to do is to pay attention. No man who values the reputation of his store will countenance his girls in soliciting customers to buy. It is a nuisance which is very rarely effective and never profitable. Of course there is a difference between ordinary girls and a practiced, high-priced salesman or saleswoman. They have tact enough to adroitly display or quietly suggest without offensively thrusting a bargain before a customer's eyes; but these little girls are like so many colts."

"You say you don't pay them while they are ill. How do they live?"

"Well, I don't know that that is any of my business, beyond the fact that I am careful in engaging girls. I judge from their appearance somewhat, and by their recommendation a great deal. We rarely have girls come here who are strangers to us all. Some of them have sisters or cousins or relatives or friends here already, and, although I never thought about it before, if they are ill and compelled to stay away, the relative or friend who thought enough of her to get her the position will think enough of her to take care of her."

"I suppose you consider yourself a considerate employer?"

"Yes, indeed; I very rarely speak to the girls. I know them, of course, but I have very little to do with them. They are under the control of the floor-walker in each department, who is responsible for the discipline, and although he has no power to discharge, his recommendation would be acted upon ninety-nine times in a hundred."

It is a noticeable fact that in almost all the large stores the Hebrew element is in a vast majority. There are a few candy stores, millinery shops, boot and shoe "emporiums" and restaurants where the employees are not of the Hebrew persuasion. These are chiefly country girls and women, but they are a totally distinct class from shop-girls of the period. Shop-girls vary from fifteen to twenty years of age, seventeen being a fair average age. These are the girls whom we see, bright and chippy and full of fun upon the sidewalk, neatly attired from top to toe, and all apparently contented with their lot, although, as an experienced employer said, "There isn't a girl in this store who doesn't expect to be married before she is twenty years old, and the consequence is that money is looked upon as a means to a temporary end. They regard every dollar they receive as so much spending money. They don't pretend to save anything. I don't know as they could if they wanted to. Every penny outside of their board goes for clothing, the two articles on which they lay the greatest stress being their hats and their shoes, a kind of perversion of the French theory, I suppose, that 'a woman well gloved and well shod can go through the world without criticism.'"

New York is a great place, and her mysteries have been the theme of writers many a time and oft, but I doubt if the cynic, the humanitarian, or the ordinary man or woman can find, in all the wide-horizoned range, anything more mysteriously interesting or interestingly mysterious than the shop-girls of the period—where they come from, where they go, and how they live. HOWARD.

CORK.

Some Interesting Points Concerning This Very Useful Article.

The density of cork varies with its quality and age. Thin corks are usually heavier than those of the same volume that have grown more rapidly, and, in corks of the same class, the density increases with the age. M. Brisson gives 0.240 as an average maximum, and the ordinary density of a ten-year-old cork may be taken at 0.2. With extreme lightness are associated other valuable qualities: that of being a poor conductor of heat and sound; impermeability to liquids; imperfect combustibility, and non-liability to decay, by reason of which it is susceptible of very numerous applications in industry. The most important use of the substance is for bottle-corks. The bark which is intended to be used in this form is kept in a damp cellar. When taken to the shop it is cut by the first workman into strips, the width of which corresponds with the length of the future cork. A second workman cuts these strips into squares suited in size to its diameter. The squares, strung, are plunged into boiling water to make them swell out. They are then stored in a cool place, and kept constantly moist by sprinkling, till they pass into the hands of the corkmaker. He applies them in succession, giving them a rotary motion, to the edge of a wide-bladed knife, drawing them at the same time slowly along its length, and, by skillful manipulation, transforms the square into a round cork. This is the method usually practiced in France. Workmen in other countries handle the knife in different manners. It is essential, to obtain a good and solid cork, to take care that its axis as it is cut from the bark be parallel with the axis of the tree on which the bark grew; but the broad, flat corks have to be cut perpendicular to the axis of the tree. Only the finest corks are now made by hand. A good workman can turn out in the method described about 1,000 corks a day.—*Popular Science Monthly.*

A State Capital.

The new State capitol of Texas will be [illegible]

DRUMMERS.

THE UNIQUE POSITION THEY OCCUPY IN COMMERCIAL LIFE.

No Business Can be Successfully Conducted Without Their Aid—The Custom Had Its Origin in England—Reduced to a Fine Art—Acquaintance Their Stronghold.

The drummer occupies a unique position in our commercial system. Many attempts have been made to dislodge him, but notwithstanding this he comes up smiling and takes his place soliciting trade as careless and debonair as if he was not at all connected with the efforts made to destroy his calling.

It is a fact now thoroughly understood that no business can be successful without the drummer. Price lists, catalogues and photographs have been sent out by merchants to induce trade, without one-tenth of the result that has accompanied the drummer's personal efforts. Printed matter, through the multiplicity of printing presses, has become so abundant that it attracts no attention whatever, and its recipient does not even bestow a glance upon it as he throws it into the waste-basket.

Every line of business nowadays has its drummer, who, briefly speaking, drums up trade for his house. The custom had its origin in England, where Dickens, with his immortal pen, told of English commercial travelers and their doings. A commercial dinner is yet one of the features at all the English hotels, where the festive knight of the gripsack presides and is held in much reverence. But Yankee drummers can give points to their transatlantic cousins. They beat the world in point of sagacity, courage, enterprise, worth and goaheadativeness, and to the drummers of effete monarchies can say with pride, "There are no flies on us."

When drumming was first introduced into this country, a commercial traveler would start out with a whole stock of goods. He would only go to principal cities and remain in them until it all was disposed of. Country merchants would then pay two visits to town—in the spring and in the fall. As the itinerant system of doing business found favor, drummers gradually increased, and the frequency of their visits made the stocks of goods they carried lighter and lighter, till samples have come to be the only things representative of the goods the drummer sells. In cases where the bulky nature of the goods forbids the drummer carrying samples along, photographs that are true to nature are by the drummer exhibited to his customers in the various towns on his route. Instead of the country merchant making periodical visits to New York, he is posted on the latest style and buys of the peripatetic drummer. He gets his news, gossip of the trade, and the latest story from him as well.

Having outlined the method of transacting business in this country, the manufacturer drumming the wholesaler, the wholesaler drumming the retailer, and the retailer drumming the consumer, it must not be thought that each drummer in his respective class has a picnic of it in selling his goods. Probably the man who originally went about the country with his stocks of goods could easily sell them. But with an army of drummers traversing the country from Portland, Me., to Portland, Ore., it is only the fellow who commands attention, is a diplomat in the best sense of the term, is of unassailable courage and indomitable will, is not swerved from his purpose by any obstacle, is of skillful address, has persuasive eloquence and withal has discretion when to leave his prey, and is a shrewd observer of human nature, and knows how to play upon men's weakness and foibles, that nowadays is the successful drummer.

Drumming is now reduced to a fine art. Competition has done away with friendship and overproduction has made the drummer sell, when nine times out of ten the man he sells to don't, won't and can't, without a mighty effort, get rid of the goods he has just bought. In many lines of merchandise the point has been reached where every day drummers stand in line, two or three deep, awaiting their turn to present their particular article. Wholesale and many retail establishments have now their buyer, whose duty it is to resist the drummer's importunities and buy only such goods as he can sell. Of course, buyers, as all-powerful individuals, are diligently courted. Bribery is often hinted at, but the buyers, be it to their credit said, are quite free from this grave offense. They are mostly recruited from the ranks of drummers, and know the danger of accepting bribes to tempt them from the path of duty, and know as well the value of courtesy and a kind word from a man in their position.

They tell in the old days of the benefits of whiskey or wine upon an obdurate buyer. But with drumming as a fine art dissipation of any kind is out of the question. The drummer must tell his story connectedly, tersely, briefly and command the buyer's attention by his silvery utterances. The merit of the goods he is offering for sale has nothing to do with his success. Goods are judged by the salesman's manner of offering them. A drummer recently told me that he could sell the dirt off the streets, and when I doubted the assertion, demonstrated the fact by taking some street refuse and wrapping it in tin foil, sold it before my eyes, as some compound with a big-sounding name.

Acquaintance is everything with the drummer. He should know the people to whom he wishes to sell and the place at which his goods sell. Beyond this knowledge, friendship does not figure in business transactions. It is safe to say that by many the drummer is not appreciated. He is looked upon by some as a very cheeky individual and by others as an unmitigated bore. But in his struggles for success, is it any wonder that he is apt to forget the amenities and proprieties of life? He sees only one end to be obtained, and in his desire to reach that forgets all else. It is the old story of having one object in view and overlooking everything else to get there. I maintain that to be a successful drummer requires greater astuteness than to become a general. The pathway of a drummer is open to all, but only the man of resolution, character and mind can successfully travel it. ROMNEY H. F[illegible]

Not Qualified to Judge.

"I hear, Colonel Oldboy, that your daughter Julia is a promising singer."

"Yes, so they say."

"Well, you are a competent critic. What do you think of her abilities?"

"My dear sir, all I know of her [illegible] what I hear. [illegible]"